

DECLARATION OF JOHN BAIRD

Declarant, John Baird, states as follows:

1. I am the Director of Engineering for ICG ADDCAR Systems, LLC ("ADDCAR"), and have held that position from the year 2005 until the present. I am responsible for managing the engineering department employees and engineering projects, with oversight of all aspects of engineering including: mechanical, electrical, and hydraulic.
2. I am an inventor of Patent Application Serial No. 10/594,787 and ADDCAR is the assignee of the instant patent application.
3. I am very familiar with the mining industry and mining machinery, and have been involved in the coal mining industry since 1988. I am graduate of the University of Pittsburgh at Johnstown with a Bachelor Degree in Mechanical Engineering Technology.. Before my time at ADDCAR, I served as an Engineer with EIMCO Coal Machinery (currently Bucyrus). I started with EIMCO in 1988 as an entry level engineer and progressed through the department to Senior Engineer responsible for continuous miner development in the Research and Development Department. I departed EIMCO in November of 1993 to join ADDCAR.
4. Upon information and belief, Mraz, Patent No.: 6,799,809, ("Mraz") discloses a mining machine connected to a receiving module with extenders, shown in the drawings as advancing cylinders. In an alternate embodiment, the advancing cylinders connected to the mining machine are mounted on an advancing machine separate from the receiving module. The mining machine in Mraz is connected to its following unit, be it the receiving module or the advancing machine, by the advancing cylinders. The receiving module or advancing module includes braces, typically side jacks. The side jacks brace the advancing machine or receiving module against the sides of the mine, then the advancing cylinders extend to advance the mining machine. The side jacks are then released and the cylinders retracted to move the advancing

module or receiving module up behind the mining machine. This process is repeated to advance the miner in an "inchworm" manner, expanding and contracting the total length of the mining machine and following advancing module or receiving module.

5. Upon information and belief, Mraz's "inchworm" method of advancement requires that the advancing cylinders be connected to both the mining machine and following unit so that retracting the advancing cylinders can produce a pulling motion, drawing the following unit up behind the mining machine. Although not explicitly stated in the text of Mraz, the drawings and the nature of Mraz's method of locomotion require that the advancing cylinders be connected to both the mining machine and following unit by pivotal connections. Figs. 20 and 21 of Mraz show the advancing cylinders terminating in circular devices, namely, generally cylindrical pivotal connections, viewed from above. As one advancing cylinder is extended further than the other to steer the mining machine, the connection angle between the mining machine and the following unit changes. If the advancing cylinders were perpendicularly fixed to the mining machine and following unit, and did not use a pivotal connection, the change in connection angle caused by steering the mining unit would cause the attachment between the advancing cylinders and at least one of their supports to break.

6. Upon information and belief, attaching the advancing cylinders in Mraz's invention via pivotal connections allows the connection angle between the mining machine and following unit to change, enabling the mining machine to be steered by extending the cylinders in different amounts or at different rates on either side of the mining machine. However, the method of advancement disclosed by Mraz also subjects the pivotal attachments to shear stress. As the advancing cylinders are extended in different amounts, the mining machine and following unit deviate from a parallel arrangement, and the advancing cylinders do not apply their force

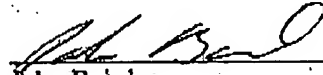
perpendicularly to each unit. The force of the advancing cylinders applied in a non-perpendicular manner causes shear stress to be applied parallel or to the face of the mining unit and/or tangential to the pivotal connections. The pivotal connections risk deformation or breakage if subjected to a heavy load, which limits the force which can be used to extend the advancing cylinders and/or requires extremely heavy duty pivotal connections.

7. Upon information and belief, the invention disclosed in Patent Application Serial No. 10/594,787 differs from Mraz by separating the pivotal connection between the miner and conveyor unit from the actuators/advancing cylinders. Referring to the embodiment of the present invention disclosed in Fig. 5a, the first and second actuator are mounted to the frame of the steering unit laterally spaced from the midline of the miner. The second pivot pin connects the third clevis and the third mounting bracket, creating a pivotal connection between the miner and the conveyor unit located at the midline of the miner. The connection angle between the between the miner and conveyor unit may be altered by extending the displaceable guide element of one actuator while retracting the displaceable guide element of the other actuator the same amount. The actuators are mounted on and connected to only the steering unit and engage a bearing surface on the miner. There is no attachment between the displaceable guide elements and the miner, so there is no connection to be deformed or broken by shear stress. Therefore, greater force may be exerted by the actuators in the present invention than the advancing cylinders in Mraz, as there are no pivotal connections at the termini of the actuators in the present invention to be damaged by shear stress. This allows for the use of more massive miners and corresponding stronger actuators to steer the miners. Each of the other embodiments shown in Figs. 5b-d of the present invention share this characteristic as well. In all embodiments of the

present invention, the actuators are mounted on and connected to one unit, be it the miner, steering unit, or conveying unit, and engage a bearing surface on another unit.

8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application and/or document or any registration resulting therefrom.

Further Declarant sayeth not.


John Baird
Director of Engineering for ICG
ADDCAR Systems, LLC


Date